

## FLEXIBLE POLYOLEFIN

### 2 : 1 Shrink

#### MILITARY SPECIFICATION and UL / CSA



RoHS/RoHS2 Compliant

#### TYPICAL FEATURES

- 1) SUMITUBE B2 is a very flexible, flame-retarded, radiation-crosslinked heat shrinkable polyolefin tubing which meets all of the material and functional requirements of Military Specification AMS-DTL- 23053/5, Class 1 and 3.
- 2) Shrink temperature is 90°C.
- 3) Operating temperature range is -55°C to +135°C and up to 200°C for short time durations.
- 4) B2 is recommended for use in general purpose applications such as wire marking, color coding, and electrical insulation of light wire harness assemblies. For higher expansion ratio versions see B2(3X), B2(4X), and B2(4XC) data sheets.

#### STANDARD SIZES

SIZE	INSIDE DIAMETER AS SUPPLIED (MIN)		INSIDE DIAMETER AFTER RECOVERY (MAX)		WALL THICKNESS AFTER RECOVERY (NOM)	
	INCH	(MM)	INCH	(MM)	INCH	(MM)
3/64	.046	1.2	.023	0.6	.016	0.40
1/16	.063	1.6	.031	0.8	.017	0.43
3/32	.093	2.4	.046	1.2	.020	0.51
1/8	.125	3.2	.062	1.6	.020	0.51
3/16	.187	4.8	.093	2.4	.020	0.51
1/4	.250	6.4	.125	3.2	.025	0.64
3/8	.375	9.5	.187	4.8	.025	0.64
1/2	.500	12.7	.250	6.4	.025	0.64
5/8*	.625	15.9	.313	7.9	.027	0.69
3/4	.750	19.1	.375	9.5	.030	0.76
1	1.000	25.4	.500	12.7	.035	0.89
1 1/4*	1.250	31.8	.625	15.9	.038	0.97
1 1/2	1.500	38.1	.750	19.1	.040	1.02
2**	2.000	50.8	1.000	25.4	.045	1.14
3**	3.000	76.2	1.500	38.1	.050	1.27
4**	4.000	101.6	2.000	50.8	.055	1.40

**Standard Colors:** Black, White, Red, Yellow, Blue, Green, Violet, Gray, Orange (Other colors subject to factory approval and quote)

**Standard Package:** Spooled (S) or 4 foot lengths (4')

**How to Order:** (Type of material) (Size) (Color) (Packaging)

**Example:** B2 1/4 Black 4'

\* These sizes do not meet SAE dimensional requirements (sizes not listed in spec size tables)

\*\* These sizes do not meet /5, Class 3 (sizes not listed in Class 3 size table)

## B2 SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
<b>Physical:</b> Tensile strength (psi) Elongation (%) Specific gravity Low temperature flex (-55° C) Heat shock (250° C, 4 hrs.) Heat resistance (175° C, 168 hrs.) Elongation (%) Secant modulus (psi) Longitudinal change (%)	ASTM D638 ASTM D638 ASTM D792 AMS-DTL-23053 AMS-DTL-23053  ASTM D638 ASTM D882 AMS-DTL-23053	1500 min. 200 min. 1.35 max. no cracking no cracking  100 min. 2.5 X 10 <sup>4</sup> max. ±5
<b>Electrical:</b> Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	ASTM D876 ASTM D876	500 min. 1.0 X 10 <sup>14</sup> min.
<b>Chemical:</b> Corrosion (175° C, 16 hrs.) Water absorption (%) Fluid resistance (23°C, 24 hrs.) Tensile strength (psi) Flammability Shrink temperature, nominal	AMS-DTL-23053 ASTM D570  AMS-DTL-23053 UL 224 VW-1	no corrosion 0.5 max.  1000 min. pass 90° C

**Specification references:**   AMS-DTL-23053/5, Class 1 & 3  
   UL 224 125° C, 600 V, VW-1 File E48762 YDPU2  
   CSA C22.2 No. 198.1-98



915 Armorlite Drive  
 San Marcos, CA 92069

Telephone: (800) 758-3515  
 FAX: (800) 758-3517

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